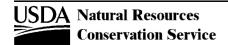
Scott County, Minnesota

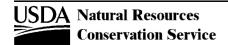
[This report lists only those map unit components that are rated as hydric. Dashes (---) in any column indicate that the data were not included in the database. Definitions of hydric criteria codes are included at the end of the report]

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
AaA: Alluvial land, 0 to 2 percent slopes	Alluvial land, occasionally flooded	90	Flood plains	No	
AaB: Alluvial land, 2 to 6 percent slopes	Alluvial land, occasionally flooded	90	Flood plains	No	
Ab: Alluvial land, frequent overflow, 0 to 6 percent slopes	Alluvial land, frequent overflow	90	Flood plains	Yes	4
Ba: Beach materials, sandy	Beaches, sandy	90	Beaches	No	
	Soils that are poorly drained	10		Yes	2B1
Bb: Beach materials and muck	Beaches, sandy	45	Marshes, Shorelines	Yes	2B1, 3
	Muck soil	45	Marshes, Shorelines	Yes	1, 3
Bc: Blue Earth mucky silty clay loam, 0 to 1 percent slopes	Blue Earth Canisteo	90	Depressions, Moraines Swales	Yes Yes	2B3, 3 2B3, 3
D-ID.	Carnsteo	10	Gwales	163	203, 3
BdB: Kingsley, Mahtomedi and Hayden complex, 2 to 6 percent slopes	Kingsley	40	Moraines	No	
complex, 2 to a percent dioped	Mahtomedi	40	Moraines	No	
	Hayden	20	Moraines	No	
BdC: Kingsley, Mahtomedi and Hayden complex, 6 to 12 percent slopes	Kingsley	40	Moraines	No	
	Mahtomedi	40	Moraines	No	
	Hayden	20	Moraines	No	



Scott County, Minnesota

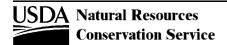
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
BdC2:					
Kingsley, Mahtomedi and Hayden complex, 6 to 12 percent slopes,	Kingsley	40	Moraines	No	
moderately eroded	Mahtomedi	40	Moraines	No	
	Hayden	20	Moraines	No	
BdD:					
Kingsley, Mahtomedi and Hayden complex, 12 to 18 percent slopes	Kingsley	40	Moraines	No	
	Mahtomedi	40	Moraines	No	
	Hayden	20	Moraines	No	
BdD2:					
Kingsley, Mahtomedi and Hayden complex, 12 to 18 percent slopes,	Kingsley, moderately eroded	40	Moraines	No	
moderately eroded	Mahtomedi, moderately eroded	40	Moraines	No	
	Hayden, moderately eroded	20	Moraines	No	
BdE2:					
Kingsley, Mahtomedi and Hayden complex, 18 to 25 percent slopes	Kingsley, moderately eroded	40	Moraines	No	
	Mahtomedi, moderately eroded	40	Moraines	No	
	Hayden, moderately eroded	20	Moraines	No	
BdF:					
Kingsley, Mahtomedi and Hayden complex, 25 to 50 percent slopes	Kingsley	40	Moraines	No	
	Mahtomedi	40	Moraines	No	
	Hayden	20	Moraines	No	
BeD3:					
Kingsley, Mahtomedi and Hayden complex, 12 to 18 percent slopes,	Kingsley, severely eroded	40	Moraines	No	
severely eroded	Mahtomedi, severely eroded	40	Moraines	No	
	Hayden, severely eroded	20	Moraines	No	
	Mahtomedi, severely eroded	40	Moraines	No	



Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
BeE3: Kingsley, Mahtomedi and Hayden	Kingsley, severely eroded	40	Moraines	No	
complex, 18 to 25 percent slopes	Mahtomedi, severely eroded	40	Moraines	No	
	Hayden, severely eroded	20	Moraines	No	
CaB: Clarion loam, 2 to 6 percent slopes	Clarion	85	Moraines	No	
	Nicollet	5		No	
	Omsrud	5		No	
	Webster	5	Drainageways	Yes	2B3
CaB2: Clarion loam, 2 to 6 percent slopes, moderately eroded	Clarion, moderately eroded	85	Moraines	No	
	Nicollet	5		No	
	Omsrud	5		No	
	Webster	5	Depressions	Yes	2B3
CaC: Clarion loam, 6 to 12 percent slopes	Clarion	85	Moraines	No	
	Nicollet	5		No	
	Omsrud	5		No	
	Webster	5	Drainageways	Yes	2B3
CaC2: Clarion loam, 6 to 12 percent slopes, moderately eroded	Clarion, moderately eroded	85	Moraines	No	
,	Nicollet	5		No	
	Omsrud	5		No	
	Webster	5	Drainageways	Yes	2B3

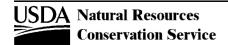


Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
CbC3:					
Clarion soils, 6 to 12 percent slopes, severely eroded	Clarion, severely eroded	85	Moraines	No	
	Nicollet	5		No	
	Omsrud	5		No	
	Webster	5	Drainageways	Yes	2B3
Cc:					
Comfrey silty clay loam	Comfrey	95	Flats, Flood plains	Yes	2B3
	Oshawa	5	Flood plains	Yes	2B3, 3
CdA: Copaston silt loam, 0 to 2 percent slopes	Copaston	85	Stream terraces	No	
•	Joilet	8	Depressions	Yes	2B3
	Tilfer	7	Depressions	Yes	2B3
CdB: Copaston silt loam, 2 to 6 percent slopes	Copaston	85	Stream terraces	No	
	Joilet	8	Flood plains, Stream terraces	Yes	2B3
	Tilfer	7	Depressions	Yes	2B3, 3
CdB2: Copaston silt loam, 2 to 6 percent slopes, moderately eroded	Copaston, moderately eroded	85	Stream terraces	No	
	Joilet	8	Flood plains, Stream terraces	Yes	2B3
	Tilfer	7	Depressions	Yes	2B3, 3
DaA: Dakota loam, 0 to 2 percent slopes	Dakota	90	Stream terraces	No	
	Hanska	10	Stream terraces	Yes	2B3

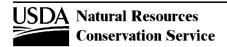


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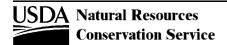
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
DaB:					
Dakota loam, 2 to 6 percent slopes	Dakota	90	Stream terraces	No	
	Hanska	10	Stream terraces	Yes	2B3
DaB2: Dakota loam, 2 to 6 percent slopes, moderately eroded	Dakota, moderately eroded	90	Stream terraces	No	
	Hanska	10	Stream terraces	Yes	2B3
DaC2: Dakota loam, 6 to 12 percent slopes, moderately eroded	Dakota, moderately eroded	100	Stream terraces	No	
DbA: Dickman sandy loam, 0 to 2 percent slopes	Dickman	90	Stream terraces	No	
	Dickinson	5		No	
	Sparta	5		No	
DbB: Dickman sandy loam, 2 to 6 percent slopes	Dickman	90	Stream terraces	No	
·	Dickinson	5		No	
	Sparta	5		No	
DbB2:					
Dickman sandy loam, 2 to 6 percent slopes, moderately eroded	Dickman, moderately eroded	90	Stream terraces	No	
	Dickinson	5		No	
	Sparta	5		No	
DbC2: Dickman sandy loam, 6 to 12 percent slopes, moderately eroded	Dickman, moderately eroded	90	Stream terraces	No	
	Dickinson	5		No	
	Sparta	5		No	



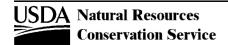
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Dc:					
Dorchester loam and silt loam	Dorchester	85	Flood plains	No	
	Comfrey	8	Flood plains	Yes	2B3
	Lomax	7		No	
Dd: Dorchester silty clay loam	Dorchester	85	Flood plains	No	
	Comfrey	8	Flood plains	Yes	2B3
	Lomax	7		No	
De: Duelm variant, fine sandy loam	Duelm, variant	90	Flats, Stream terraces	No	
	Isan	10	Depressions		2B3
Df: Dundas silt loam, 0 to 2 percent slopes	Dundas	85	Flats, Moraines	Yes	2B3
	Cordova	10	Drainageways	Yes	2B3
	Le Sueur	5		No	
Dg: Dune land	Dune land	100	Dunes, Stream terraces	No	
EaA: Estherville loam and sandy loam, 0 to 2 percent slopes	Estherville	90	Stream terraces	No	
policioni diopoc	Wadena	10		No	
EaB: Estherville loam and sandy loam, 2 to 6 percent slopes	Estherville	90	Stream terraces	No	
	Wadena	10		No	
EaB2: Estherville loam and sandy loam, 2 to 6 percent slopes, moderately eroded	Estherville, moderately eroded	90	Stream terraces	No	
	Wadena	10		No	



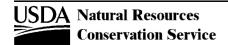
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
EaC: Estherville loam and sandy loam, 6 to	Estherville	90	Stream terraces	No	
12 percent slopes	Wadena	10		No	
EaC2: Estherville loam and sandy loam, 6 to 12 percent slopes ,moderately eroded	Estherville, moderately eroded	90	Stream terraces	No	
	Wadena	10		No	
EbB:					
Salida gravelly sandy loam, 0 to 6 percent slopes	Salida	90	Stream terraces	No	
	Hawick	10		No	
EbB2: Salida gravelly sandy loam, 0 to 6 percent slopes, moderately eroded	Salida, moderately eroded	90	Stream terraces	No	
	Hawick	10		No	
EbC: Salida gravelly sandy loam, 6 to 12 percent slopes	Salida	90	Stream terraces	No	
	Hawick	10		No	
EbC2: Salida gravelly sandy loam, 6 to 12 percent slopes, moderately eroded	Salida, moderately eroded	90	Stream terraces	No	
	Hawick	10		No	
Fa: Faxon silty clay loam, 0 to 2 percent slopes	Faxon	85	Flats, Stream terraces	Yes	2B3, 3
	Oshawa	8	Flood plains	Yes	2B3, 3, 4
	Seelyeville	7		Yes	4
Ga: Glencoe silty clay loam	Glencoe	90	Depressions, Moraines	Yes	2B3, 3
	Webster	10	Swales	Yes	2B3
Gp: Pits, gravel	Pits, gravel	100	Outwash plains		



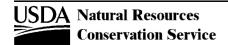
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
HaB:	Handan	0.5	Manatana	N	
Hayden loam, 0 to 6 percent slopes	Hayden	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaB2: Hayden loam, 2 to 6 percent slopes, moderately eroded	Hayden, moderately eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaC: Hayden loam, 6 to 12 percent slopes	Hayden	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaC2: Hayden loam, 6 to 12 percent slopes, moderately eroded	Hayden, moderately eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaD: Hayden loam, 12 to 18 percent slopes	Hayden	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaD2: Hayden loam, 12 to 18 percent slopes,	Hayden, moderately eroded	85	Moraines	No	
moderately eroded	Dundas	8		No	
	Le Sueur	7		No	



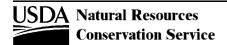
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
HaE2:					
Hayden loam, 18 to 25 percent slopes	Hayden, moderately eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HaF2: Hayden loam, 25 to 35 percent slopes	Hayden	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HbB: Hayden sandy loam, 0 to 6 percent slopes	Hayden	85	Moraines	No	
·	Dundas	8		No	
	Le Sueur	7		No	
HbB2: Hayden sandy loam, 0 to 6 percent slopes, moderately eroded	Hayden, moderately eroded	85	Moraines	No	
•	Dundas	8		No	
	Le Sueur	7		No	
HbC: Hayden sandy loam, 6 to 12 percent	Hayden	85	Moraines	No	
slopes	Dundas	8		No	
	Le Sueur	7		No	
HbC2: Hayden sandy loam, 6 to 12 percent	Hayden, moderately eroded	85	Moraines	No	
slopes, moderately eroded	Dundas	8		No	
	Le Sueur	7		No	



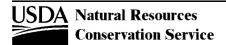
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
HbD: Hayden sandy loam, 12 to 18 percent slopes	Hayden	85	Moraines	No	
'	Dundas	8		No	
	Le Sueur	7		No	
HbD2: Hayden sandy loam, 12 to 18 percent slopes, moderately eroded	Hayden, moderately eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HbD3: Hayden sandy clay loam, 12 to 18 percent slopes, severely eroded	Hayden, severely eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HbE2: Hayden sandy loam, 18 to 25 percent slopes	Hayden, moderately eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HbE3: Hayden sandy clay loam, 18 to 25 percent slopes	Hayden, severely eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HbF2: Hayden sandy loam, 25 to 35 percent slopes	Hayden	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	



Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
HcC3:					
Hayden soils, 6 to 12 percent slopes, severely eroded	Hayden, severely eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HcD3: Hayden soils, 12 to 18 percent slopes, severely eroded	Hayden, severely eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HcE3: Hayden soils, 18 to 25 percent slopes	Hayden, severely eroded	85	Moraines	No	
	Dundas	8		No	
	Le Sueur	7		No	
HdA: Sparta fine sand, 0 to 2 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HdB: Sparta fine sand, 2 to 6 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HdB2: Sparta fine sand, 2 to 6 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HdC: Sparta fine sand, 6 to 12 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HdC2: Sparta fine sand, 6 to 12 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	

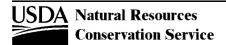


Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
HeA:					
Sparta loamy fine sand, 0 to 2 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HeB: Sparta loamy fine sand, 2 to 6 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HeB2:					
Sparta loamy fine sand, 2 to 6 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HeC: Sparta loamy fine sand, 6 to 12 percent slopes	Sparta	90	Stream terraces	No	
	Dickinson	10		No	
HeC2: Sparta loamy fine sand, 6 to 12 percent	Sparta	90	Stream terraces	No	
slopes	Dickinson	10		No	
la:					
Isanti fine sandy loam	Isanti	85	Stream terraces, Swales	Yes	2B2
	Lino	8		No	
	Markey	7	Depressions	Yes	1, 3
INT: Water, intermittent	Water, intermittent	100			
KaA: Kasota silt loam, 0 to 2 percent slopes	Kasota	85	Stream terraces	No	
	Esterville	8		No	
	Dickinson	7		No	



Scott County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
KaB:		0.5			
Kasota silt loam, 2 to 6 percent slopes	Kasota	85	Stream terraces	No	
	Esterville	8		No	
	Dickinson	7		No	
LaA: Wadena loam, 0 to 2 percent slopes	Wadena	90	Outwash plains	No	
	Biscay	10	Drainageways	Yes	2B3
LaB: Estherville loam, 2 to 6 percent slopes	Estherville	90	Outwash plains	No	
Zonovino icam, Z to o porconi otopos					
	Biscay	5	Drainageways	Yes	2B3
	Wadena	5		No	
LaB2: Estherville loam, 2 to 6 percent slopes, moderately eroded	Estherville, moderately eroded	90	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
	Wadena	5		No	
LaC: Estherville loam, 6 to 12 percent slopes	Estherville	90	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
	Wadena	5		No	
LaC2: Estherville loam, 6 to 12 percent slopes, moderately eroded	Estherville, moderately eroded	90	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
	Wadena	5		No	
LaD: Estherville loam, 12 to 18 percent slopes	Estherville	90	Outwash plains	No	
	Wadena	10			

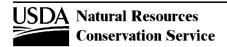


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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
_aD2: Estherville loam, 12 to 18 percent slopes, moderately eroded	Estherville, moderately eroded	90	Outwash plains	No	
	Wadena	10			
bB:					
Estherville-Burnsville complex, 2 to 6 percent slopes	Estherville	55	Outwash plains	No	
	Burnsville	40	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
bB2:					
Estherville-Burnsville complex, 2 to 6 percent slopes, moderately eroded	Estherville, moderately eroded	55	Outwash plains	No	
	Burnsville, moderately eroded	40	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
bC:					
Estherville-Burnsville complex, 6 to 12 percent slopes	Estherville	55	Outwash plains	No	
	Burnsville	40	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
bC2:					
Estherville-Burnsville complex, 6 to 12 percent slopes, moderately eroded	Estherville, moderately eroded	55	Outwash plains	No	
	Burnsville, moderately eroded	40	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3
bD:					
Estherville-Burnsville complex, 12 to 50 percent slopes	Estherville	55	Outwash plains	No	
	Burnsville	40	Outwash plains	No	
	Biscay	5	Drainageways	Yes	2B3



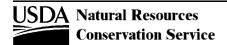
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
LcB:					
Lester loam, 2 to 6 percent slopes	Lester	85	Moraines	No	
	Cordova	8	Drainageways	Yes	2B3
	Le Sueur	7		No	
LcB2: Lester loam, 2 to 6 percent slopes, moderately eroded	Lester, moderately eroded	85	Moraines	No	
•	Cordova	8	Drainageways	Yes	2B3
	Le Sueur	7		No	
LcC: Lester loam, 6 to 12 percent slopes	Lester	85	Moraines	No	
	Cordova	8	Drainageways	Yes	2B3
	Le Sueur	7		No	
LcC2: Lester loam, 6 to 12 percent slopes, moderately eroded	Lester, moderately eroded	85	Moraines	No	 opo
	Cordova	8	Drainageways	Yes	2B3
	Le Sueur	7		No	
LcD: Lester loam, 12 to 18 percent slopes	Lester	85	Moraines	No	
	Terril	8		No	
	Stroden	5		No	
	Hamel	2	Drainageways	Yes	2B3
LcD2: Lester loam, 12 to 18 percent slopes, moderately eroded	Lester, moderately eroded	85	Moraines	No	
·	Terril	8		No	
	Stroden	5		No	
	Hamel	2	Drainageways	Yes	2B3



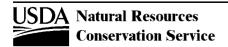
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
LcE2:					
Lester loam, 18 to 25 percent slopes	Lester, moderately eroded	90	Moraines	No	
	Hamel	5	Drainageways	Yes	2B3
	Terril	5		No	
LcF2:					
Lester loam, 25 to 35 percent slopes	Lester	100	Moraines	No	
LdC3: Lester soils, 6 to 12 percent slopes, severely eroded	Lester, severely eroded	85	Moraines	No	
	Cordova	8	Drainageways	Yes	2B3
	Le Sueur	7		No	
LdD3:					
Lester soils, 12 to 18 percent slopes, severely eroded	Lester, severely eroded	85	Moraines	No	
	Terril	8		No	
	Stroden	5		No	
	Hamel	2	Drainageways	Yes	2B3
LdE3:					
Lester soils, 18 to 25 percent slopes	Lester, severely eroded	90	Moraines	No	
	Hamel	5	Drainageways	Yes	2B3
	Terril	5		No	
LdF3: Lester soils, 25 to 35 percent slopes	Lester	100	Moraines	No	
Le: Le Sueur loam	Le Sueur	90	Moraines	No	
	Cokato	5		No	
	Cordova	5	Drainageways	Yes	2B3



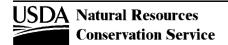
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
Lf:					
Le Sueur-Lester complex	Le Sueur	55	Moraines	No	
	Lester	35	Moraines	No	
	Cordova	5		Yes	2B3
	Hamel	5	Drainageways	Yes	2B3
M-W: Water, miscellaneous	Water, miscellaneous	100			
Ma: Marsh	Marsh	100	Marshes	Yes	1, 3
Oa: Oshawa silty clay loam	Oshawa	95	Flood plains, Oxbows	Yes	2B3, 3, 4
	Minneiska	5		No	
PaA: Palms muck, 0 to 2 percent slopes	Palms	85	Depressions, Moraines	Yes	1, 3
	Canisteo	5	Flats	Yes	2B3
	Glencoe	5	Depressions	Yes	2B3, 3
	Houghton	5	Drainageways	Yes	1, 3
PaB: Palms muck, sloping, 2 to 12 percent slopes	Palms, sloping	85	Bluffs, Toes	Yes	1, 3
	Canisteo	5	Rims	Yes	2B3
	Glencoe	5	Toes	Yes	2B3
	Houghton	5	Depressions	Yes	1, 3
PbA: Houghton muck, 0 to 2 percent slopes	Houghton	90	Depressions, Moraines	Yes	1, 3
	Glencoe	5	Depressions	Yes	2B3
	Muskego	5	Depressions	Yes	1



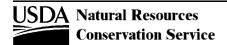
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
PbB: Houghton muck, sloping, 2 to 6 percent slopes	Houghton, sloping	90	Bluffs, Toes	Yes	1, 3
	Glencoe	5	Toes	Yes	2B3
	Muskego	5	Toes	Yes	2B3
Ra: Oshawa silty clay loam	Oshawa	90	Flood plains	Yes	2B3, 4
	Kalmarville	5	Flood plains	Yes	2B3, 4
	Minneiska	5		No	
Sa: Sandstone outcrops	Rock outcrop, sandstone	100	Terraces	No	
Sb: Steep land, Hayden-Lester materials	Steep land	100	Escarpments	No	
Sc: Stony land	Stony land	100	Terraces	No	
Ta: Terrace escarpments	Terrace escarpments	100	Escarpments, Terraces	No	
TbB: Terril loam, 2 to 6 percent slopes	Terril	90	Moraines	No	
	Glencoe	5		Yes	2B3
	Le Sueur	5		No	
TbC: Terril loam, 6 to 12 percent slopes	Terril	90	Moraines	No	
	Glencoe	5		Yes	2B3
	Le Sueur	5		No	
TbD: Terril loam, 12 to 18 percent slopes	Terril	100	Moraines	No	
TbE: Terril loam, 18 to 25 percent slopes	Terril	100	Moraines	No	



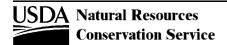
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
TcA: Terril loam, 0 to 2 percent slopes	Terril	85	Moraines	No	
	Le Sueur	8		No	
	Glencoe	7		Yes	2B3
TcB: Terril loam, 2 to 6 percent slopes	Terril	85	Moraines	No	
	Le Sueur	8		No	
	Glencoe	7		Yes	2B3
TcC: Terril loam, 6 to 12 percent slopes	Terril	100	Moraines	No	
TcD: Terril loam, 12 to 18 percent slopes	Terril	100	Moraines	No	
TcE: Terril loam, 18 to 25 percent slopes	Terril	100	Moraines	No	
W: Water	Water	100			
WaA: Waukegan silt loam, 0 to 2 percent slopes	Waukegan	90	Stream terraces	No	
	Estherville	5		No	
	Kanarazni	5		No	
WaB: Waukegan silt loam, 2 to 6 percent slopes	Waukegan	90	Stream terraces	No	
	Estherville	5		No	
	Kanarazni	5		No	



Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
WaB2: Waukegan silt loam, 2 to 6 percent slopes, moderately eroded	Waukegan, moderately eroded	90	Stream terraces	No	
	Estherville	5		No	
	Kanarazni	5		No	
WaC2: Waukegan silt loam, 6 to 12 percent slopes, moderately eroded	Waukegan, moderately eroded	90	Stream terraces	No	
	Kanarazni	10		No	
WaD2: Waukegan silt loam, 12 to 18 percent slopes, moderately eroded	Waukegan, moderately eroded	90	Stream terraces	No	
	Kanarazni	10		No	
Wb: Webster-Glencoe silty clay loams	Webster	70	Moraines, Swales	Yes	2B3
	Glencoe	30	Depressions	Yes	2B3, 3
Wc: Webster-Le Sueur silty clay loams	Webster	70	Moraines, Swales	Yes	2B3
	Le Sueur	30	Moraines	No	
ZaA: Sartell fine sand, 0 to 2 percent slopes	Sartell	90	Stream terraces	No	
	Duelm	5		No	
	Isanti	5	Depressions	Yes	2B3, 3
ZaA2: Sartell fine sand, 0 to 2 percent slopes, moderately eroded	Sartell, moderately eroded	90	Stream terraces	No	
	Duelm	5		No	
	Isanti	5	Depressions	Yes	2B3, 3
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Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
ZaB:					
Sartell fine sand, 2 to 6 percent slopes	Sartell	90	Stream terraces	No	
	Duelm	5		No	
	Isanti	5	Depressions	Yes	2B3, 3
ZaB2:					
Sartell fine sand, 2 to 6 percent slopes, moderately eroded	Sartell, moderately eroded	90	Stream terraces	No	
,	Duelm	5		No	
	Isanti	5	Depressions	Yes	2B3, 3
ZaC2: Sartell fine sand, 6 to 12 percent slopes, moderately eroded	Sartell, moderately eroded	100	Stream terraces	No	



This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2003) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 2002).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2B3). Definitions for the codes are as follows:

- 1. All Histels except for Folistels, and Histosols except for Folists.
- 2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
 - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
 - B. are poorly drained or very poorly drained and have either:
 - 1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
 - 2) a water table at a depth of 0.5 foot or less during the growing season if
 - permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
 - 3) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
- 3. Soils that are frequently ponded for long or very long duration during the growing season.
- 4. Soils that are frequently flooded for long or very long duration during the growing season.

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